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ABSTRACT

Spontaneous interaction of three infants in conversational situations with a familiar adult at home were videotaped until the children were 2 years old, at 2- to 3-week intervals. Imitation was defined as children's utterances which maintained the order of adult utterances, were produced in the same tone, and which repeated at least one of the last three words produced by the adult. While analysis revealed a high number of imitations, imitations were low in number when compared to total language used. Maximum use of imitation occurred when subjects were between 20 and 22 months of age. Imitations were especially evident in conversational situations, such as reading, which involve the lexical procedure of designation and in which child and adult jointly attend to an object. Children were found to actively use exclusive imitation (imitations with no creative use in any context) in different contexts at different ages. Findings suggest that imitation appears to be an important mechanism by which children incorporate words into their early vocabulary, maintain dialogue, and coordinate their speech with adult linguistic behavior. Five line charts are provided. (RH)

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IMITATION AND LANGUAGE ACQUISITION

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The relationship between imitation and language acquisition has been object of different considerations. Some authors, like Ervin (1964), state that imitation does not contribute to language development, while others, like Moerk (1983), remark the important role of imitation. From a general point of view, these discussions refer to the relations between imitation and morphological and syntactic development. Howewer, only a few works are centred on the study of relationship between the first language outcoming and the imitative processes. In the same sense, Rogdon and Kurdek (1977) show the importance of imitation for the first vocabulary acquisition, while Bruner (1983) gives a relative role to the issue. Nevertheless, the configuration of child's first language constituted, among other terms, by formulae, require of an imitative process to be explained. In this sense, our work is an attempt to clarify the relationship between imitation and the first language outcoming.

METHOD

a) Subjects: Our three subjects Mª del Mar, Roger and Emilio, belong to medium/high socio-cultural level families. Mª del Mar was incorporated into the study when she was 1;2. Emilio was 0;10 and Roger 0;5. All children were recorded until the age of two. Emilio speaks Castillian exclusively in the family environment while Mª del Mar and Roger use Catalan when speaking to their fathers.

b) Procedure: Subjects were video-taped at home every 2/3 weeks during periods of 45 min. of adult-child interaction. Most sessions had an emphasis on the mothers, although on several occasions, fathers or both parents, took part in the interaction. Adults were told that

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we were carrying out a study on bilingualism, they were not given any instructions.

All material obtained was transcribed following a 4 colums system where adult language, child language and both non-verbal behaviours were specified.

In Miller's sense (1979), we considered imitation those utterances that, mantaning the same order than the adult's utterances were produced in the same tone and appeared as one of the last three words produced by the adult. That is to say, we exclusively considered imitation child utterances exactly alike adults' utterances and those ones which reduced the last three terms produced by the adult. Finally, we distinguished between imitation and exclusive imitation. The latter corresponds to those utterances which only take place as imitations with no other creative use in any context.

In the same way, the rest of utterances from child's speech not considered imitations were also clasified. Respecting our exposition we only distinguish between non imitative utterances produced within a discursive context and non imitative utterances out of a conversational situation.

RESULTS

The analysis of the conversational utterances of our subjects shows a high number of imitations. Mª del Mar uses them in a 36.10% of cases, Roger in a 32.04% and Emilio passes the 50% (59.84%). Figure I shows its evolution as function of the age.

FIGURE I

The maximum number of imitations is reached by our three subjects between the 20 and 22 months. Both Mª del Mar and Emilio reach it when their vocabulary increases from 80 to 100 words (83 to 101 in

Mª del Mar and 87 to 100 in Emilio). Howewer, Roger's maximum number of imitations corresponds to a vocabulary increase from 123 to 154 words. This result must be carefully analysed as Roger at 1;7,25 and with an active vocabulary of 93 words shows 21 imitations (60% of his conversational procedures) in a session which does not include any "book-reading" situation, differently from the following ones. On the contrary, Mª del Mar and Emilio's data correspond to sessions including "book-reading" situations. Furthermore, these situations are present, again, in the following sessions of our three subjects. Mª del Mar and Emilio's data, thus, are comparable to imitations appearing later on. This is not the case, therefore, of Roger. Our data, anyway, especially Mª del Mar and Emilio's adequate to the "designative hypothesis" formuled by McShane (1980), among others, establishing that children, after the elaboration of the designation concept would tend to a quick increase of their vocabulary.

Figure II establishes the relationship between imitations and lexical procedures used in conversational contexts.

FIGURE II

The first utterances produced in a discursive context are imitations. Therefore, the study of our subjects' first words shows a great similarity among them, as well as with the language used by the adult to mark relevant aspects of joint action and attention. Our three subjects, for instance, use, among their first five words, the formulae ya está (allgone) and hola (hello), together with the term papá (dady). The rest of terms variations are cu-cú (boo), pà (bread), mamá (mummy), más (more) and caca

The analysis of Figure II shows how Mª del Mar, an expressive girl, uses imitations in a decreasing number, increasing it at the end

of the period studied. On the contrary, Emilio, clearly referential boy, makes an important use of imitations along all this period. Roger can be considered in an intermediate position. The study of the adult's conversational scope gives an explanation to the data. Emilio's mother tends to imitate her son's utterances, resulting thus, conversational cycles in which mother and child imitate each other. On the contrary, Mª del Mar's mother seldom imitates her child, showing a tendency to make linguistic descriptions of Mª del Mar's environement, letting a few "slots" so that the child uses her language. Vila (1984) studied both educative styles showing their importance to the referential or expressive orientation of child's speech.

Figure III shows the relationship between imitation and total language in our subjects.

FIGURE III

Its analysis gives a relative importance to the imitations in the first language outcoming. Mª del Mar, so, obtains her maximum percentage of imitations at the age of 20 months, corresponding this to a 25% and to a 10.70% for the mean proportion along the period. Roger and Emilio's means are respectively, 13.77% and 18.68%. That is to say, although imitation appears as an important mechanism in some contexts, the global consideration of our subjects, language shows imitations as a small part of it.

Figure IV shows the relationship between exclusive imitations and the total of language used by our subjects making more evidence the role of imitation respecting first language.

FIGURE IV

The analysis of Figure IV gives support to the previous estatements. Emilio, in his first language, has an enormous number of exclusive imitations (between the 50% and the 70% of his active vocabulary between the 16 and the 17 months). Mª del Mar stands on the opposite side with a vey low number of imitations.

Figure V presents the relationship between exclusive imitations and the total number of imitations.

FIGURE V

Roger and Mª del Mar with their development in age present a greater number of exclusive imitations respecting the total number of imitations. This is important as it reveals how both subjects recognise imitation as a mechanism to increase their vocabulary. In a similar way, Emilio shows an important number of exclusive imitations respecting thetotal number of imitations, although, in his case, this domain the linguistic scene from its outcoming.

CONCLUSIONS

The analysis of our subjects' utterances, exact or reduced imitations of the adult's utterances specify the relationship between imitation and the first language outcoming. First, we remark the low number of total imitations respecting the global language utilized. That reveals as evident if we undestand language as communication and, therefore, child, uses it to express its communicative intentions. In this sense, imitation is a mechanism that can hardly achieve this objec-

tive. Secondly, the imitations showed appeared in conversational situations, that is to say, interchange situations in which child and the adult interact or pay attention jointly in relation to objects. These are situations like the "book-reading" context, usualy related to designation. Its study shows how in this situations the number of imitations increases considerably, especially the exclusive imitations, showing the importance of imitation in relation to lexical acquisition once the subjects have elaborated the designation concept. Howewer, Emilio's data and Mª del Mar's, by opposition, permit another interpretation of imitation. So, in Emilio's case we consider he utilizes imitation to regulate and maintain his conversational interchanges. That is to say, as the mother tends to create a discursive context based on imitation, Emilio uses it to adequate himself to the adult's speech and to obtain, therefore, a greater linguistic input. On the contrary, Mª del Mar, whose mother adopts an opposite role respecting the conversational "scaffolding", uses imitation, as well as Roger, exclusively to incorporate new words to her active vocabulary. In this sense, it is important to notice that both Mª del Mar and Roger, in a very short period of time, use actively their exclusive imitations in different contexts, while Emilio inmmediately uses only a part of his exclusive imitations, appearing some of them actively a few months later. That is to say, imitation appears as an important mechanism to incorporate words to the first vocabulary. It correlates with the conversational style proposed by the adult appearing, therefore, as a mechanism to obtain more input from the adult,

or simply to adequate himself to the adult when this, in an excesive use, offers imitation as a conversational model.

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FIGURE I

Distribution of the Mª del Mar, Roger and Emilio's total number of imitations

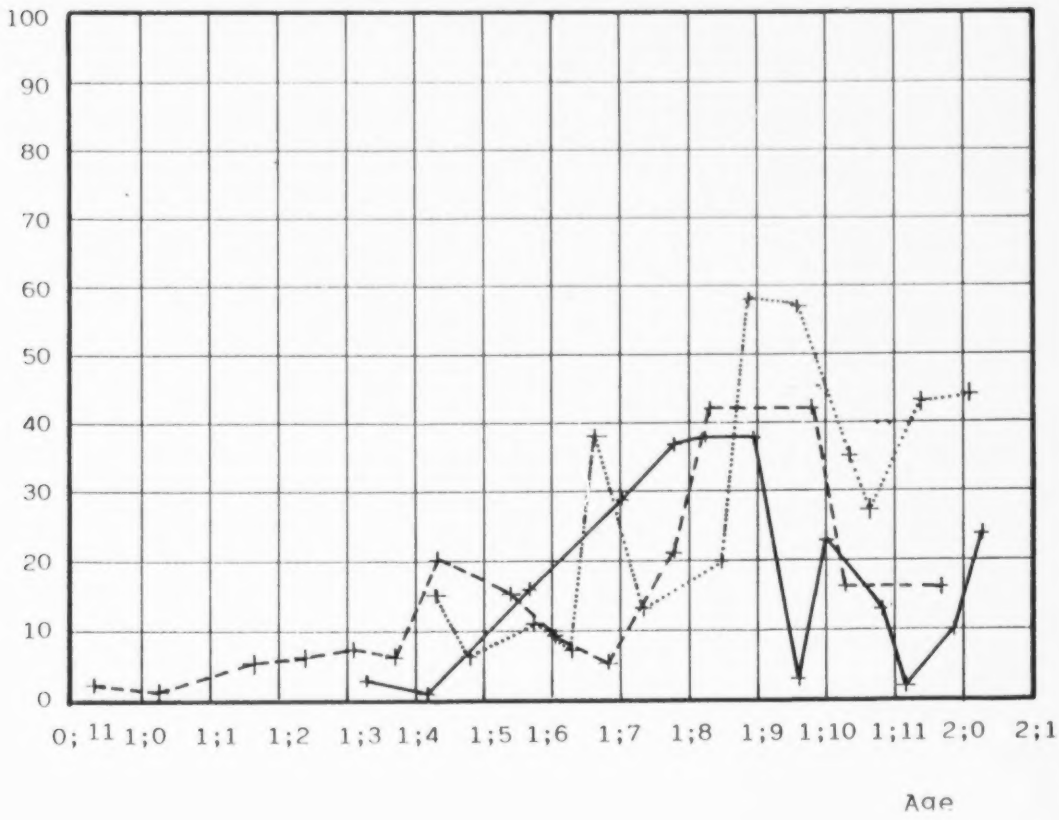


FIGURE II

Relationship between the number of imitations and the total lexical procedures in Mª del Mar, Roger and Emilio's conversations.

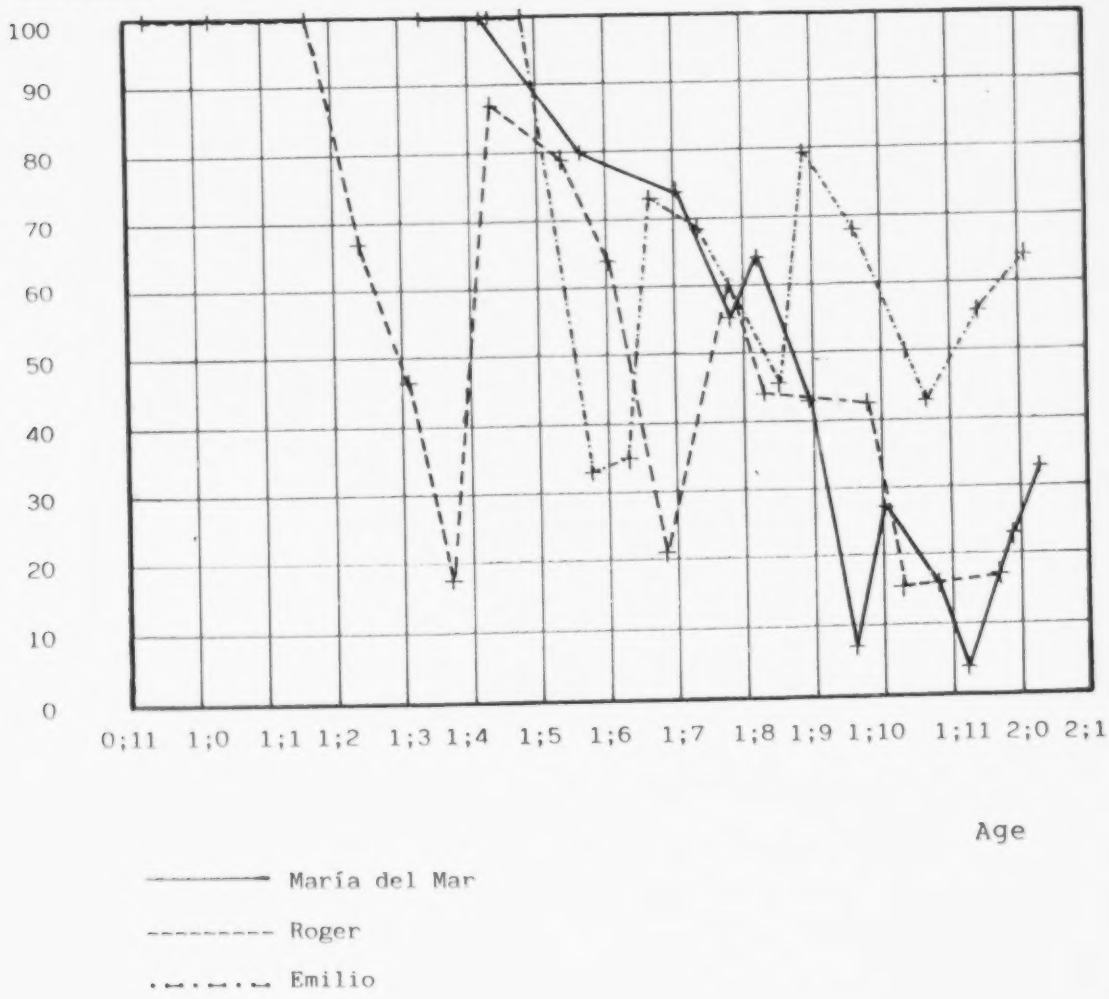


FIGURE III

Relationship between the number of imitations and total lexicon in Mª del Mar, Roger and Emilio

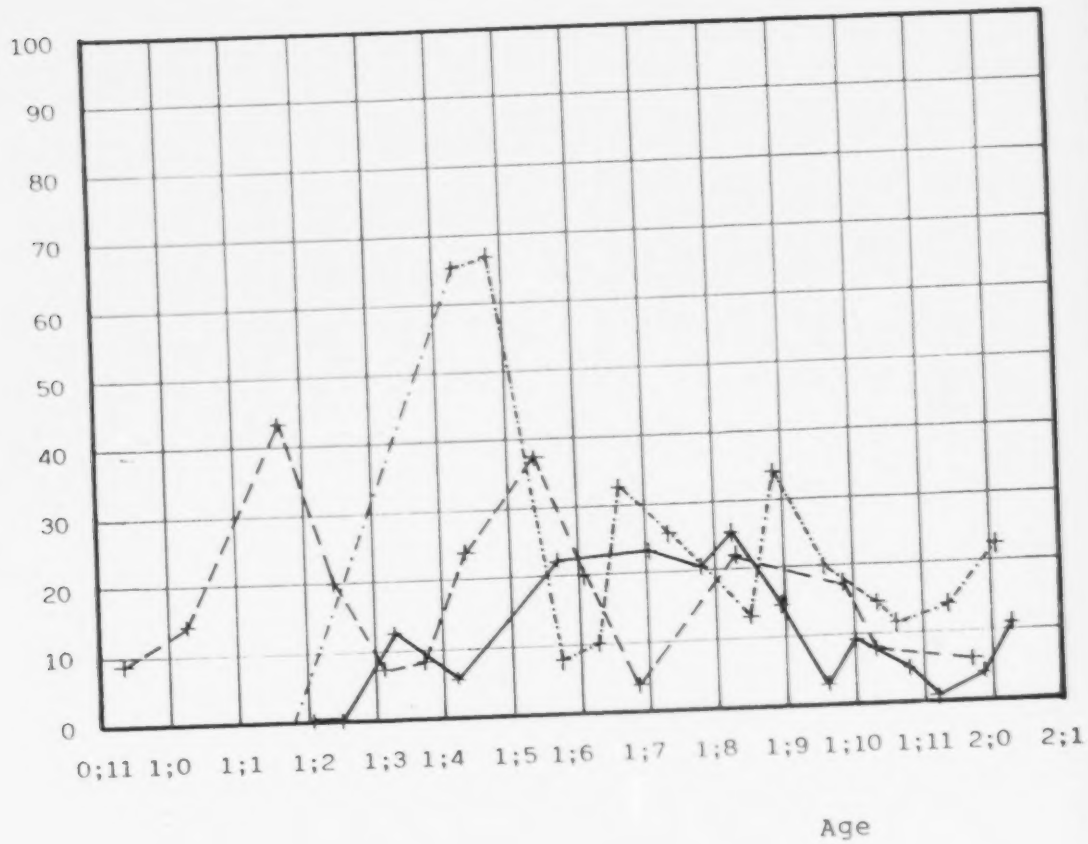
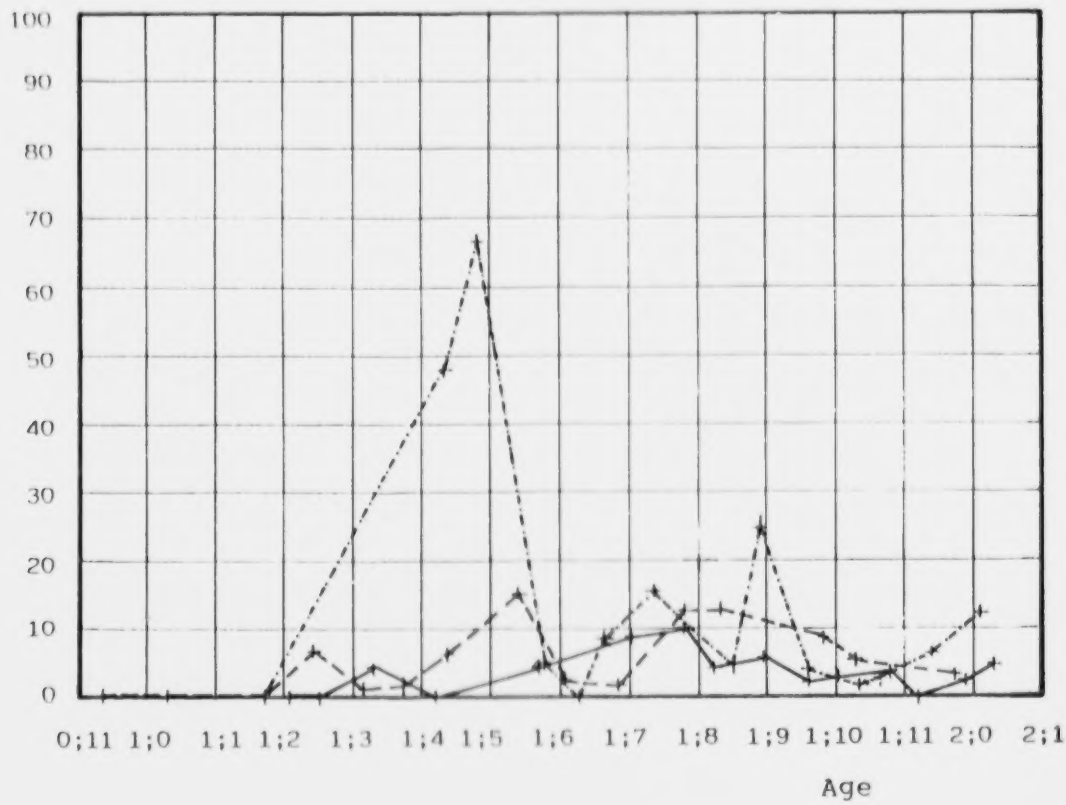


FIGURE 1V

Relationship between the number of exclusive imitations and the total lexicon in Mª del Mar, Roger and Emilio.



———— María del Mar

-------- Roger

.-.-.-.- Emilio

FIGURE 7

Relationship between the number of exclusive imitations and the total number of imitations of Mª del Mar, Roger and Emilio